

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for detecting antigen-specific, specificity of activated lymphocytes in an organism, comprising the steps of:

exposing test lymphocytes from said organism to a target antigen in the presence of neutralizing antibodies against cytokines which can induce cell proliferation, wherein the target antigen is selected from the group consisting of a human histocompatibility antigen, an allogeneic antigen, a heteroantigen, a viral antigen and a bacterial antigen;

determining activity in said test lymphocytes and in control lymphocytes from said organism by measuring a detectable signal, wherein said control lymphocytes are exposed to an irrelevant antigen or no antigen in the presence of neutralizing antibodies against cytokines which can induce cell proliferation; and

comparing activity of the test and control lymphocytes, wherein a lower activity of the test lymphocytes compared to the control lymphocytes is indicative of antigen-specific activated lymphocytes in the organism1) diluting an antigen by a medium, wherein the antigen can activate lymphocytes in said organism, and wherein the medium contains, in addition to regular ingredients of cell culture, neutralizing antibodies against cytokines which can induce cell proliferation, and/or cytokines which induce mononuclear cell apoptosis or inhibit cell activation or inhibit cell proliferation;

2) preparing a mononuclear cell suspension with the medium, wherein the suspension contains activated lymphocytes to be tested;

3) incubating a mixture of the antigen and the above suspension containing the activated lymphocytes on a cell culture plate; and

4) determining existence of antigen-specific activated lymphocyte by comparing the differences of detectable signals between test wells and in control wells of said cell culture plate.

2. (Canceled)

3. (Currently amended) The method of claim 12, wherein the target antigen[[s]] is a are particulate antigen[[s]] or soluble antigen[[s]]; and wherein the human histocompatibility antigen[[s]] are is either one of the HLA type I or type II antigens, or a mixture of HLA type I antigen[[s]] and HLA type II antigen[[s]].

4. **(Currently amended)** The method of claim 1, ~~wherein the medium further comprising adding comprises an immunosuppressive agent[[s]] and/or an anti-cancer medicament[[s]] to said test and control lymphocytes, wherein the amount of the immunosuppressive agent[[s]] or anti-cancer medicament[[s]] used is being 0.001 ng-100 µg/ml medium[[:]] and the amount of the cytokine neutralizing antibody used is being 1 µg-10 mg/ml medium; and the amount of the cytokines used which induce mononuclear cell apoptosis or inhibit cell activation or inhibit cell proliferation being 0.01-1000 activity unit/ml medium.~~

5. **(Currently amended)** The method of claim 1, wherein the detectable signals ~~are signals which can reflect cell activity changes in the wells is measured by a method selected from the group consisting of MTT colorimetry, cell staining, fluorescent antigen staining and enzyme linked immunosorbent assay.~~

6. **(Currently amended)** The method of claim 4, wherein the immunosuppressive agent[[s]] ~~are is selected from the group consisting of~~ Prograf (FK506), Cyclosporins, cyclophosphamide, azathioprine, rapamycin, RS-61443, BQR, immunosuppressant secreted by human acute T lymphocytic leukemia cell strain JM, deoxyspergualin, and adrenal cortex hormone, and wherein the anti-cancer medicament[[s]] ~~are is selected from the group consisting of a topoisomerase inhibitor, an alkylating agent, an antimetabolite, and a derivative[[s]] of retinoic acid[[s]]-vitamin A₅ and other medicaments which are potentially capable of inducing immunosuppressive function or inducing tumor cells apoptosis.~~

7. **(Original)** The method of claim 6, wherein the immunosuppressive agents and the anti-cancer medicaments are used alone or in combination.

8. **(Currently amended)** The method of claim 6, wherein the adrenal cortex hormone is selected from ~~the group consisting of~~ medrat, prednisone, hydrocortisone, ~~or and~~ dexamethasone.

9. **(Currently amended)** The method of claim 6, wherein the Cyclosporin is selected from ~~the group consisting of~~ Cyclosporin A ~~or and~~ Cyclosporin C.

10. **(Currently amended)** The method of claim 4, wherein the cytokines which can ~~induce stimulate~~ cell proliferation are selected from ~~the group consisting of~~ interleukin 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23, α-interferon, β-interferon, ω-interferon, γ-interferon, granulocyte colony-stimulating factor, macrophage colony stimulating

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factor, granulocyte-macrophage colony stimulating factor, stem cell factor, ~~or~~ and
thrombopoietin.

11-23. (Canceled)